



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,597	06/17/2005	Horst Linn	04-505	1368
34704 7590 11/26/2008 BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510				
EXAMINER				
SMITH, PRESTON				
ART UNIT		PAPER NUMBER		
4152				
MAIL DATE		DELIVERY MODE		
11/26/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/506,597

Applicant(s)

LINN ET AL

Examiner

PRESTON SMITH

Art Unit

4152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-70 is/are pending in the application.
- 4a) Of the above claim(s) 56-70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. PCT/EP 03/02307.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-856)
- Paper No(s)/Mail Date 12/03/2004.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 56-70 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected apparatus, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/06/2008.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

The disclosure is objected to because of the following informalities: In paragraph 0088 of applicant's specification, the capacity value is reported as 11.5 W/g. This is however incorrect because the use of 1500 W with 1000 g of rice would produce a capacity value of 1.5 W/g, not 11.5 W/g. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 43 and 44 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claims 43 and 44, it is unclear as to what microwaving treating by a 1 to 10 cm and 3 to 7 cm layer thickness means. There are no examples in the specification pertaining to these specific thicknesses that would clarify what is meant by this. However, for the purposes of compact prosecution, the claimed thickness has been considered to mean the thickness of the bag containing the rice.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 31, 33-35, 37-38 rejected under 35 U.S.C. 102(b) as being anticipated by Lakshman Velupillai, US-Patent 4,810,511 as evidenced by brown rice NPL.

Referring to **claim 31**, Velupillai teaches:

a.) bagging rice with a Boerner Sampler (column 4, lines 32-33) wherein the rice contains over 10% moisture (26 %-32% is taught in column 1, lines 61-62).

b.) using microwave energy to increase the temperature of hulled rice to about 95 C - 100 C (column 3, lines 19-21) for about 2-15 minutes (column 3, lines 23-24). This rising of the temperature is equivalent to heating and 2-15 minutes falls within the claimed range of 1-30 minutes. The hulled or brown rice (column 4, line 67. Further, brown rice is hulled rice as evidenced by brown rice NPL) is placed inside of a Sears portable microwave oven containing a usable cavity (column 4, lines 43-46). A tunnel is defined to be a hollow conduit or recess by the Merriam Webster dictionary. The cavity here is considered to be a recess so this cavity is considered to be a tunnel. Also, 95-100 C falls within the claimed range of less than 130C. Also, the treatment is considered to be interrupted by alternating (alternate is defined by Merriam Webster's dictionary to mean occurring or succeeding by turns) microwave treatment because Velupillai teaches two different treatment steps referred to as Stage I and Stage II (column 4, lines 48-61). Alternating here is done by succeeding from Stage I to Stage II.

c.) treating the rice with up to 2.0833 W per gram and using microwaves of a frequency of 915 MHZ (column 3, line 32). Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46), the invention of Velupillai would treat $625\text{W}/300\text{g} = 2.0833 \text{ W/g}$ at 100% power. The range of Velupillai thus overlaps the claimed range of 0.05 – 4 W. Further, 915 MHZ falls within the claimed frequency range.

Referring to **claim 33**, Velupillai teaches microwave treatment for about 2-15 minutes (column 3, lines 23-24). 2-15 minutes overlaps with the claimed range of 1-12 minutes.

Referring to **claim 34**, Velupillai teaches microwave treatment about 2-15 minutes (column 3, lines 23-24). 2-15 minutes overlaps with the claimed range of 3-5 minutes.

Referring to **claim 35**, Velupillai teaches treating the rice with 0.625- 2.0833 W per gram. Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46) and 30% of 625 is used (column 4, line 50), the invention of Velupillai would treat $(0.30)*625\text{W}/300\text{g} = 0.625 \text{ W/g}$ at 30% and $625\text{W}/300\text{g} = 2.0833 \text{ W/g}$ at 100% power. This range overlaps with the claimed range of 0.3 -2.0W.

Referring to **claim 37**, Velupillai teaches 2450 MHZ (column 3, line 32).

Referring to **claim 38**, Velupillai teaches using microwaves at a specified wattage for a particular mass of rice (column 4, lines 34-46). In order to cook to a temperature of 90 C -110 C (column 3, line 58), the microwave exposure would have to have some sort of relationship with the amount of rice used since microwaves are what is being used to achieve this heating of rice. The capacity value W/g is simply the wattage used/mass of rice used (see paragraph 0073 of applicant's specification. 1500 W/1000 g = 1.5 W/g which is the capacity value). As mentioned in examiners address of claim 1, this is done in an alternating fashion.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness

under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 32, 36, 45-51 rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman Velupillai, US-Patent 4,810,511 as evidenced by brown rice NPL.

Referring to **claim 32**, Velupillai teaches bagging rice with a Boerner Sampler (column 4, lines 32-33) wherein the rice contains 26 %-32% moisture prior to bagging (column 1, lines 61-62) however Velupillai fails to specifically teach 11-13% moisture. Adjusting the time of soaking as implied in column 1, lines 60-62 would affect the overall moisture of the rice. It would have been obvious to one having ordinary skill in the art at the time of the invention to reduce the time of soaking to allow for a lower moisture content of from 11-13% for the intended application, since it has been held that

discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 36**, Velupillai teaches treating the rice with 0.625- 2.0833 W per gram. Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46) and 30% of 625 is used (column 4, line 50), the invention of Velupillai would treat $(0.30) \times 625 \text{ W} / 300 \text{ g} = 0.625 \text{ W/g}$ at 30% and $625 \text{ W} / 300 \text{ g} = 2.0833 \text{ W/g}$ at 100% power. It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the wattage of the microwave used in Velupillai to 0.25W/g for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). Achieving a capacity value of 0.25 W/g would only require one to use the lowest wattage value of 90 W (column 4, line 46) for the microwave used and using 360 g of rice.

Referring to **claim 43**, Velupillai does not explicitly teach a bag having a thickness of 1 to 10 cm however it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness of the bag to 1 to 10 cm for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). This adjustment can be accomplished by simply adjusting the amount of rice placed inside of the bag.

Referring to **claim 44**, Velupillai does not explicitly teach a bag having a thickness of 3 to 7 cm however it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness of the bag to 3 to 7 cm for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). This adjustment can be accomplished by simply adjusting the amount of rice placed inside of the bag.

Referring to **claim 45**, Velupillai teaches treating the rice with 0.625- 2.0833 W per gram. Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46) and 30% of 625 is used (column 4, line 50), the invention of Velupillai would treat $(0.30) \times 625 \text{ W} / 300 \text{ g} = 0.625 \text{ W/g}$ at 30% and $625 \text{ W} / 300 \text{ g} = 2.0833 \text{ W/g}$ at 100% power. It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the wattage of the microwave used in Velupillai to 1.5 W/g for the intended application since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). Achieving 1.5 W/g would only require one to use 70% of the total wattage available with the 300g of rice.

Referring to **claim 46**, Velupillai teaches for about 2-15 minutes (column 3, lines 23-24). It would have been obvious to one having ordinary skill in the art at the time of

the invention to adjust the time to 3 minutes for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 47**, Velupillai teaches treating the rice with 0.625- 2.0833 W per gram. Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46) and 30% of 625 is used (column 4, line 50), the invention of Velupillai would treat $(0.30) \times 625 \text{ W} / 300 \text{ g} = 0.625 \text{ W/g}$ at 30% and $625 \text{ W} / 300 \text{ g} = 2.0833 \text{ W/g}$ at 100% power. It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the wattage of the microwave used in Velupillai to 1.5 W/g for the intended application since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). Achieving 1.5 W/g would only require one to use about 70% of the total wattage available with the 300g of rice.

Also, referring to the time, Velupillai teaches for about 2-15 minutes (column 3, lines 23-24). The claimed range overlaps with the range taught in Velupillai and further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the time for microwaving since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to 5 to 30 second breaks, Velupillai teaches draining the product and then microwave treating it a second time (column 2, lines 2-8). There is one break in

time between the point of the first stage of treatment and the second stage of treatment but it is not clear how long this break is (but it would be dependent on who is doing the draining and/or how the draining is being accomplished). It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the time between the treatments for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 48**, Velupillai teaches 2 stages of treatments (column 4, line 36). The ultimate goal of this 2 stage treatment is to bring the moisture from 26-32% (column 1, lines 61-62) to about 14% (column 2, line 11). The second stage here is considered to be essential for the further drying of rice after the first stage. Applicant implies that interrupted treatment (using multiple stages) is typically done to aid with drying in paragraph 0070 and further implies the adjustability of the amount of treatments. It would be obvious to one of ordinary skill in the art to adjust the amount of stages for the treatment process in order to reduce the overall moisture for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to 10 second breaks, Velupillai teaches draining the product and then microwave treating it a second time (column 2, lines 2-8). There is a break in time between the point of the 1st stage of treatment and the second stage of treatment but it

is not clear how long this break is (but it would dependent on who is doing the draining and/or how the draining is being accomplished). It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the time between the treatments for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 49**, Velupillai teaches treating the rice with 0.625- 2.0833 W per gram. Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46) and 30% of 625 is used (column 4, line 50), the invention of Velupillai would treat $(0.30) \times 625 \text{ W} / 300 \text{ g} = 0.625 \text{ W/g}$ at 30% and $625 \text{ W} / 300 \text{ g} = 2.0833 \text{ W/g}$ at 100% power. It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the wattage of the microwave used in Velupillai for the first stage to 0.75 W/g for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). Achieving 0.75 W/g would only require one to use 225 W (37.5% of the available capacity) for the microwave used and using 300 g of rice.

Also, referring to the time of 1-4 minutes, Velupillai teaches for about 2-15 minutes (column 3, lines 23-24). The claimed range overlaps with the range taught in Velupillai and further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the time for microwaving since it has been held that

discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Velupillai teaches treating the rice with 0.625- 2.0833 W per gram. Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46) and 30% of 625 is used (column 4, line 50), the invention of Velupillai would treat $(0.30) \times 625 \text{ W} / 300 \text{ g} = 0.625 \text{ W/g}$ at 30% and $625 \text{ W} / 300 \text{ g} = 2.0833 \text{ W/g}$ at 100% power. It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the wattage of the microwave used in Velupillai to 1.5 W/g for the second stage for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). Achieving 1.5 W/g would only require one to use about 70% of the total wattage available with the 300g of rice

Also, referring to the time of 1-5 minutes, Velupillai teaches for about 2-15 minutes (column 3, lines 23-24). The claimed range overlaps with the range taught in Velupillai and further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the time for microwaving since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 50**, Velupillai teaches treating the rice with 0.625- 2.0833 W per gram. Since 300 g of rice is used (column 4, line 34) and a 625 W microwave is used (column 4, line 46) and 30% of 625 is used (column 4, line 50), the invention of

Velupillai would treat $(0.30) \times 625\text{W}/300\text{g} = 0.625\text{ W/g}$ at 30% and $625\text{W}/300\text{g} = 2.0833\text{ W/g}$ at 100% power. It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the wattage of the microwave used in Velupillai for the first stage to 0.30 W/g for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980). Achieving 0.30 W/g would only require one to use the lowest wattage value of 90 W for the microwave used and using 300 g of rice.

Also, referring to the time, Velupillai teaches for about 2-15 minutes (column 3, lines 23-24). The claimed range overlaps with the range thought in Velupillai and further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the time for microwaving since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 51**, Velupillai teaches for about 2-15 minutes (column 3, lines 23-24). The claimed range overlaps with the range taught in Velupillai and further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the time for microwaving since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Claims 39, 41, 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman Velupillai, US-Patent 4,810,511 in view of Rainer R. Zartner, US-Patent 5,914,142 as evidenced by brown rice NPL.

Referring to **claim 39**, Velupillai teaches plastic bags (which are considered to be air proof) in column 4, lines 33-34 however it is unclear if the chemical used to create the bag is polyethylene. Zartner teaches a bag that can be made from materials such as polyethylene (column 3, lines 9-30). Even though Velupillai does not explicitly teach polyethylene bags, to one of ordinary skill in the art at the time the invention was made, it would be obvious to substitute the plastic bags of Velupillai with polyethylene bags of Zartner since both plastic bags and polyethylene bags are used to hold the rice as it is microwave treated. The suggestion/motivation for combining the arts would have been to provide a wider selection of bags for one of ordinary skill in the art, at the time of the invention, to carry out the microwave treatments.

Furthermore, a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

Additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use polyethylene bags instead of plastic bags, since it has been held to be within the general skill of a worker in the art to select a known

material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Referring to **claim 41**, Velupillai teaches plastic bags (which are considered to be air proof) in column 4, lines 33-34 however it is unclear if the bags are perforated. Zartner teaches a bag that can be made from materials such as polyethylene and that the bag contains perforations (column 3, lines 9-30). Even though Velupillai does not explicitly teach perforated bags, to one of ordinary skill in the art at the time the invention was made, it would be obvious to substitute the plastic bags of Velupillai with the perforated of Zartner since both plastic bags and perforated bags are used to hold the rice as it is microwave treated. The suggestion/motivation for combining the arts would have been to provide a wider selection of bags for one of ordinary skill in the art, at the time of the invention, to carry out the microwave treatments.

Furthermore, a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

Additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use perforated bags instead of plastic bags, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Referring to **claim 42**, Velupillai teaches plastic bags (which are considered to be air proof) in column 4, lines 33-34 however it is unclear if the chemical used to create the bag is polyethylene. Zartner teaches a bag that can be made from materials such as polyethylene and that the bag contains perforations (column 3, lines 9-30). Even though Velupillai does not explicitly teach perforated polyethylene bags, to one of ordinary skill in the art at the time the invention was made, it would be obvious to substitute the plastic bags of Velupillai with the polyethylene bags containing the perforations of Zartner since both plastic bags and perforated polyethylene bags are used to hold the rice as it is microwave treated. The suggestion/motivation for combining the arts would have been to provide a wider selection of bags for one of ordinary skill in the art, at the time of the invention, to carry out the microwave treatments.

Furthermore, a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

Additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use perforated polyethylene bags instead of plastic bags, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claim 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman Velupillai, US-Patent 4,810,511 in view of Tokiwado Kaminari Okoshi, US-Patent 4,548,830 as evidenced by brown rice NPL.

Referring to **claim 40**, Velupillai teaches plastic bags in column 4, lines 33-34 however he does not explicitly teach paper bags. Okoshi teaches paper bags in column 2, line 46. Even though Velupillai does not explicitly teach polyethylene bags, to one of ordinary skill in the art at the time the invention was made, it would be obvious to substitute the plastic bags of Velupillai with the paper bags of Okoshi since both plastic bags and paper bags are used to hold the rice as it is microwave treated. The suggestion/motivation for combining the arts would have been to provide a wider selection of bags for one of ordinary skill in the art, at the time of the invention, to carry out the microwave treatments.

Furthermore, a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

Additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use paper bags instead of plastic bags, since it has been held to be within the general skill of a worker in the art to select a known material

on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claims 52-55 rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman Velupillai, US-Patent 4,810,511 in view of Rainer R. Zartner, US-Patent 5,914,142, and further in view of Melville D. Ball, US-Patent 5,160,819 as evidenced by brown rice NPL.

Referring to **claim 52**, Velupillai teaches a microwave having a usable cavity (column 4, lines 43-46). A tunnel is defined to be a hollow conduit or recess by the Merriam Webster dictionary. Cavity here is considered to be a recess so this cavity is considered to be a tunnel. Velupillai also teaches heating the rice to 95 C to 100 C (column 3, lines 19-21). (the special wet atmosphere of 85-99 C results from heating. Since the rice of Velupillai contains moisture, when it is dried, the atmosphere surrounding the bags would be filled with some of the water vapor resulting from evaporating (with heat) the water contained in the rice. Velupillai teaches heating to a temperature range that overlaps with the claimed ranges. This sort of heating would result in producing a special wet atmosphere with a temperature that overlaps with the claimed ranges.) Velupillai fails to teach moving perforated bags, stacked one above the other, through a tunnel of a microwave via a conveyor.

Ball teaches a conveyor that can move materials into a microwave having a tunnel structure (conveyor is seen in 22 of Fig 1. Also, a description of the microwave function can be seen in the abstract).

Velupillai and Ball are analogous art because they are from the same field of endeavor, microwave treatment. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Velupillai and Ball before him or her, to substitute the microwave of Velupillai which is lacking in this specific conveyor feature with the microwave of Ball because the substitution of a microwave containing a conveyor feature for a microwave that didn't contain this feature would have been an obvious substitution to one of ordinary skill desiring to cook food (both microwaves contain conveyor features and both can cook food). The suggestion/motivation for doing so would have been to optimize the uniformity of heating (column 2, lines 3-6 of Ball).

Velupillai teaches plastic bags (which are considered to be air proof) in column 4, lines 33-34 however it is unclear if the bags are perforated. Zartner teaches a bag that can be made from materials such as polyethylene and that the bag contains perforations (column 3, lines 9-30). Even though Velupillai does not explicitly teach perforated bags, to one of ordinary skill in the art at the time the invention was made, it would be obvious to substitute the plastic bags of Velupillai with the perforated of Zartner since both plastic bags and perforated bags are used to hold the rice as it is microwave treated. The suggestion/motivation for combining the arts would have been

to provide a wider selection of bags for one of ordinary skill in the art, at the time of the invention, to carry out the microwave treatments.

Furthermore, a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

Velupillai does not teach moving vertically stacked perforated bags containing rice into the microwave via a conveyor however, it would be obvious to one of ordinary skill in the art to stack the bags vertically instead of horizontally because applicant has not disclosed that microwaving the bags in this manner solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well no matter how the bags are stacked.

Referring to **claim 53**, Velupillai teaches heating the rice to 95 C to 100 C (column 3, lines 19-21). The claimed range overlaps with the range thought in Velupillai and further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the temperatures for microwaving since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 54**, Velupillai teaches heating the rice to 95 C to 100 C (column 3, lines 19-21). The claimed range overlaps with the range taught in Velupillai

and further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the temperatures for microwaving since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Referring to **claim 55**, Velupillai teaches heating the rice to 95 C to 100 C (column 3, lines 19-21). The claimed range is substantially close to that of the instant claims and thus, this is considered to establish a prima facie case of obviousness. To one of ordinary skill in the art, it would have been obvious, at the time of the invention, to adjust the temperatures for microwaving since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRESTON SMITH whose telephone number is (571)270-7084. The examiner can normally be reached on 6:30am -5:00pm, Mon-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on (571) 272-1130. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

prs

/Joseph S. Del Sole/
Supervisory Patent Examiner, Art Unit 4152